Peak to Valley Weather

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The Official Newsletter of the National Weather Service Grand Junction

Time to Gauge the Rain!

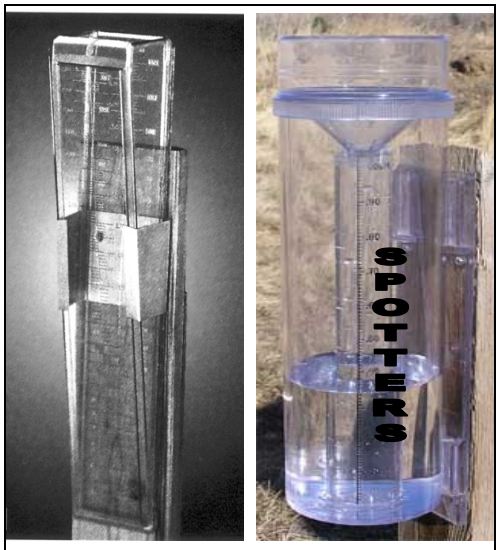
By Jim Pringle - Warning Coordination Meteorologist

Precipitation reports are very important to the National Weather Service. These reports help verify the watches, warnings and forecasts issued by meteorologists. They also serve as a comparison tool against RADAR data.

If you have a **wedge rain gage:** As soon as it looks like the chance for freezing temperatures will no longer occur, please set your wedge gage back outside.

If you have a **4-inch cylindrical rain gage**: As soon as the chance for freezing temperatures is no longer expected, please insert the inner tube back inside the 4-inch cylinder and place the funnel back on the top.

We look forward to receiving your rainfall reports.



Example of a "Wedge" gage (left) and a 4 inch cylindrical gage (right).

Weather Awareness Week

(click here)

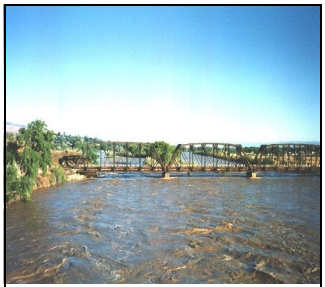
Special Points of Interest

- *Severe Weather Safety*
- *NEW Lightning Potential Product*
- *Coop News*
- *Summer and Wildfire Outlook*
- *Earth Day Open House - April 22; 12:00-6:00 (Click here for more information!)*

Spring Flood Potential Low in Western Colorado and Eastern Utah

By Bryon Lawrence - Service Hydrologist

As spring arrives in western Colorado and eastern Utah, rivers in the Central Rocky Mountains begin to swell with runoff from mountain snowmelt. The volume of this runoff, and the potential for flooding in communities along these rivers, depends largely on how much snow has accumulated in the mountains over the winter. This year, lower than normal peak flows are expected in many of the rivers and streams in western Colorado and eastern Utah. Unless a prolonged period of warm and wet weather occurs in the region, river and stream flooding is not expected to be a problem this spring.



A swollen Colorado River near Fruita, CO in 2005.

The National Weather Service will continue to host Spotter Training sessions at many locations across eastern Utah and western Colorado through the early summer. If you would like to become a storm spotter, plan to attend our 2010 classes. See the full schedule by clicking below.

SKYWARN

Severe Weather Safety

By Jeff Colton - Senior Forecaster

As the weather begins to warm up, it is important to remember that we are entering the time of year when thunderstorms often occur. Thunderstorms are an important part of life across western Colorado and eastern Utah. In Grand Junction, 63% of the annual rainfall is received from April through October, and almost all of this can be attributed to thunderstorms. Without this beneficial rain, many of the valleys would be a virtual desert. However, when thunderstorms do occur, there are many hazards that can damage property or threaten lives. It is important that everyone be aware of these hazards and know how to protect themselves and their property.

Lightning is a part of EVERY thunderstorm and often strikes without warning. Lightning kills dozens of people and injures hundreds more each year in the United States, with most deaths occurring when people are caught outside with no shelter. It is important to remember that lightning can strike several miles away from the thunderstorm, so the best place to be is inside. If you hear thunder, you are close enough to be struck by lightning. *Seek shelter immediately!*

Flooding, which can occur almost anywhere, causes more than 100 deaths each year in the United States. Most flood related deaths occur in automobiles. Even if you don't live near a river or stream, you can still be affected by flood waters. Flash flooding during the summer months occur when thunderstorms drop very heavy rainfall in a short amount of time. Drainage systems may not be able to handle all the water at once causing roads and underpasses to flood quickly. If you encounter water covering the road, find an alternate route. It only takes a small amount of water to cause your vehicle to stall or float.

Severe thunderstorms can produce large hail and damaging straight line winds. A severe thunderstorm is defined as having hail 1 inch in diameter (the size of a penny) or larger or straight line winds of 58 mph or higher. When severe thunderstorms approach, seek shelter in a sturdy building. Large hail can damage property and can cause injury to those caught outside. Strong straight line winds can occasionally exceed 100 mph, causing widespread damage equivalent to that of a tornado. These winds can overturn mobile homes and damage sturdy buildings.

Tornadoes are a very rare natural phenomenon associated with thunderstorms, but occur in the United States Great Plains more than anywhere else in the world. In western Colorado and eastern Utah, tornadoes are most common during the summer months. Tornadoes produce some of the strongest winds ever recorded at the Earth's surface and completely destroy well-built structures. The best place to be during a tornado is in a basement or sturdy building, far away from outside walls and windows. If caught outside with no shelter available, lie flat in a ditch or other low spot away from the strongest winds and debris.

Watches: The National Weather Service issues a **WATCH** when conditions are favorable for a hazardous weather event to develop within the area. Some watches include Severe Thunderstorm Watch, Tornado Watch, or Flash Flood Watch. When a watch is issued, be alert for changing weather conditions, make initial preparations for potentially hazardous weather, and listen for possible warnings.

Warnings: When the National Weather Service issues a **WARNING**, it is intended to alert you that hazardous weather is occurring now or is imminent. Some warnings include Severe Thunderstorm Warnings, Tornado Warnings, and Flash Flood Warnings. When a warning is issued, take immediate action to protect life and property from the impending hazardous weather event.

Preparedness: The first step in protecting yourself and your property is to know when a severe thunderstorm or tornado is approaching. Understand the statements and warnings issued by the National Weather Service and have a reliable means of being alerted. Obtaining a NOAA All Hazards Weather Radio is one of the best ways to make sure you know when a warning has been issued. These devices are inexpensive and can be specially programmed to alert you when threatening weather is approaching.

*Portions of this story were adapted from *"The Dryline"* a newsletter from WFO Amarillo, Texas

NWS Reaches Out

By Jim Pringle, Warning Coordination Meteorologist

Personnel from the Grand Junction National Weather Service office joined 22 other organizations on February 11th and 12th, 2010, to provide safety information to the public at the annual Mesa County Safety Fair. The National Weather Service exhibit focused on teaching approximately 1600 2nd and 4th grade students, and a large number of adults, how to protect themselves from weather dangers, including the threats from thunderstorms and flash floods. A simulator was used to illustrate the processes of tornadoes. A plasma globe was used to describe how lightning develops. Other displays included weather instruments, as well as weather radio receivers.

"PROTECTING LIFE AND PROPERTY ACROSS WESTERN COLORADO AND EASTERN UTAH FOR OVER 100 YEARS"

Lightning Potential Index (LPI) Available Daily

By Paul Frisbie, Senior Meteorologist

The leading storm related killer in Colorado and Utah is lightning. In recent years, there has been an increase of lightning casualties related to outdoor recreation. Nationwide, lightning is the number two killer, exceeding the number of fatalities from hurricanes and tornadoes combined, based on a 30 year average. Lightning injures 1,000 people a year in the nation, inflicting severe lifelong debilitating injuries.

From a public safety standpoint, there is a need for a lightning forecast or outlook. The National Weather Service provides a lightning outlook for the next two days on a daily basis, early in the morning, and covers eastern Utah and western Colorado. Day One is separated into 2 time periods, 9 AM to 3 PM and 3 PM to 9 PM. Day Two is a general outlook for the entire day. The Lightning Potential Index Web Page (http://www.crh.noaa.gov/gjt/?n=lightningpotentialindex) is a color coded map indicating areas of low, moderate, high, and extreme risk. If you have outdoor activities planned, like hiking to a mountain peak, be sure to check the lightning potential index to see if you are at risk.

"...lightning is the number two killer, exceeding fatalities from hurricanes and tornadoes..."

Weather Awareness

April

Colorado Severe Weather Week 4/11-4/17

National Air Quality Awareness Week dates TBD

June

National Lightning Safety Awareness Week 6/20-6/26

Cooperative Weather News

By John Kyle, Data Program Manager and Becky Klenk, Hydro Meteorological Technician

The NWS in Grand Junction would like to thank all of you for your dedication to and interest in weather data collecting. Your daily efforts are much appreciated. You are the eyes and ears of our community and your data is the backbone of our nation's climate history.

Historical Fact: In 1933, a Science Advisory Group apprised President Roosevelt that the work of the volunteer cooperative weather observer network was one of the most extraordinary services ever developed, netting the public more per dollar expended than any other government service in the world. And this is still true today!

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We know that many of our **Cooperative Observers** are running low on envelopes in which to mail their monthly reports. Don't despair! The *(continued on page 4)*

Summer and Wildfire Season Outlook

By Joe Ramey - Incident Meteorologist

The winter season of 2009-2010 has been dominated by warmer than normal waters in the equatorial eastern Pacific, a condition referred to as El Niño. El Niño typically brings wetter and cooler conditions to the southern portion of the country, and drier and warmer weather to the northern tier. Surprisingly, this actually happened this season! Though Colorado remains sandwiched between these stronger signals, you can see in the snowpack data below that southwest Colorado has received near to slightly above normal snowfall, while northwest Colorado has suffered below normal snowpack. This trend continued into late March with above average snowpack across the Southwest.

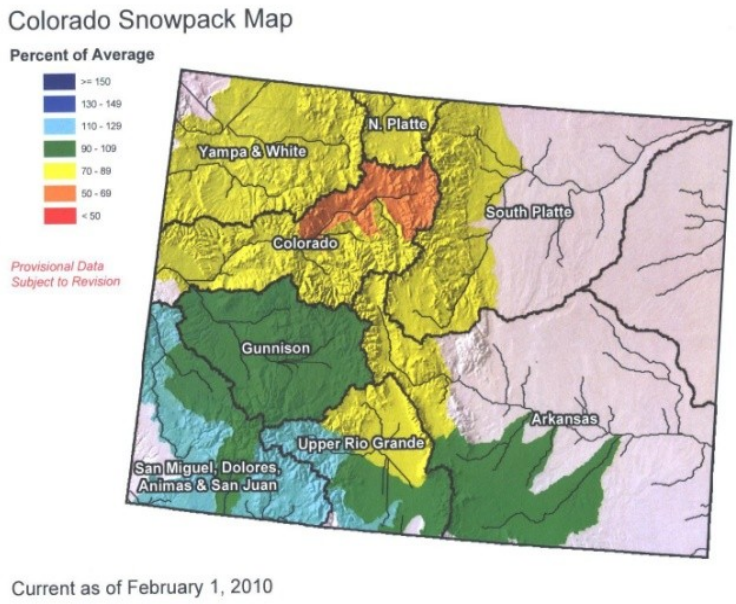
So what does this mean for the upcoming warm season? Typically El Niño spring seasons are wetter than normal for eastern Utah and western Colorado.

Several studies have concluded that the greater the spring snowpack, the weaker the summer precipitation from the North American monsoon. This would indicate late summer showers that often bubble up from the south, will be weaker than normal this year.

The official forecast from the Climate Prediction Center (CPC) is for an increased probability of above normal temperatures, with little information on how precipitation will vary from normal.

Spring snowpack levels are also loosely correlated to the upcoming fire season. Not surprisingly, dry winters lead to increased wildfire danger. The last really dry winter was 2001-2002. That infamous summer brought us large scarring wildfires in western Colorado including the Hayman, Missionary Ridge, Coal Seam, and Big Fish wildfires. This summer would lean towards increased wildfire probability in the northern Rockies, including northwest Colorado, and lesser probabilities in the southern Rockies. Remember these are the best guesses of how the summer and fire seasons will evolve.

The arid West has large variations in its year to year weather, and 2010 will likely be no exception. Numerous factors contribute to the fascinating weather that flows through western Colorado and eastern Utah.



Current as of February 1, 2010

Cooperative Weather News

(Continued from page 3)

United States Postal Service has indicated there will likely be an increase to postage in May 2010. Because of this, we are waiting to ship out additional supplies until we are certain of what the increase might be. As soon as we hear any news, we'll prepare new mailers and get them out right away.

Contact Information

Have questions? In need of equipment? Equipment not working? Please call Becky Klenk or John Kyle:

National Weather Service
792 Eagle Dr.
Grand Junction, CO 81506
1-800-868-7964

Fax: **970-257-0452**

Email: Becky.Klenk@noaa.gov or John.Kyle@noaa.gov

Web: www.weather.gov/gjt